

REMARKS

Clarifying amendments have been made to independent claims 1 and 15, and dependent claims 9 and 13 have been amended as indicated to correct clerical errors. The remaining claims are as originally filed, with claims 1-20 currently pending in the applications.

Claims 1-14

The Examiner has rejected claim 1 under 35 U.S.C. 102(b) as being anticipated by Santilli (US 5,675,361). Applicant submits that such rejection is improper and should be withdrawn for the following reasons.

Clarifying amendments have been made to independent claim 1. Applicant submits that Santilli does not anticipate claim 1, either as originally filed or as currently amended as Santilli does not disclose each and all of the limitations and elements of claim 1.

Firstly, claim 1 as originally filed and currently amended includes the limitation that the combined character and navigation key provide tactile single click feedback to a user when the combined character and navigation key is moved to any of the input positions (i.e. to a character input position or to a navigation control input position). As indicated in the example provided in the Specification at lines 2-4 of paragraph [0041], "Such tactile "click" feel results from resistance being provided against the key throughout its depression until it hits a point of maximum depression". Such a feature provides tactile feedback that indicates to the user that he or she has moved the key to an input position, regardless of whether that input position corresponds to a character input or a navigation control input. As indicated in the example provided in the Specification at lines 2-4 of paragraph [0041], "Such tactile "click" feel results from resistance being provided against the key throughout its depression until it hits a point of maximum depression".

Santilli fails to show a combined character and navigation key that provides tactile single click feedback to a user when the combined character and navigation key is moved to any of the input positions. Santilli discloses using a group of keys (for example the "Y", "U", "H" and "J" keys) for both navigation input and character input. Position sensors are mounted on the upper surfaces of the keys so that they can detect finger movement over their upper surfaces. Depressing one of the group of keys in Santilli results in a character input, and moving a finger on the surfaces of the keys can be used for navigational inputs. The Examiner has indicated that single click feedback is inherent in keys on a keyboard, however applicant submits that assuming that single click feedback is inherent in the keys of Santilli, such feedback will be provided only when a key is actually depressed, not when a user moves his or her fingers over the top of the key.

As amended, claim 1 also includes further novel features not shown in Santilli, including that the combined character and navigation key is displaceable from a undepressed position to a plurality of detectable input positions including at least one character input position corresponding to a character input for a displayable character and at least two navigation control input positions corresponding to navigation control inputs.

Accordingly, the rejection of claim 1 under 35 U.S.C. 102(b) as being anticipated by Santilli is improper and should be withdrawn.

With respect to claims that depend from claim 1, the Examiner has taken the position that claims 2, 5-7, 9-10 and 12-14 are rejected under 35 USC 103(a) as being unpatentable over Santilli in view of Osawa et al. (US 2001,0033270), and claims 3-4 and 11 are rejected under 35 USC 103(a) as being unpatentable over Santilli in view of Osawa et al. in further view of Kocis et al (US 5,485,614).

Reconsideration and withdrawal of these rejections are requested for the following reasons.

Applicant respectfully submits that the Examiner has failed to make a proper *prima facie* case of obviousness as among other things, there is no proper motivation, suggestion or incentive to be found in the cited references, collectively, to arrive at the invention of the subject claims.

Santilli discloses a very specific solution for integrating a computer keyboard pointing device into a keyboard, namely including position sensitive elements at the top surfaces of a set of keys that are used together to provide a large touch surface (see for example the abstract of Santilli). The objects and advantages stated in Santilli at column 2, lines 55 to 68 include "b) providing a pointing device which takes up no additional space of a keyboard" and "c) to provide a pointing device which is ergonomically superior to mice, joysticks, and trackballs, and the user can use his fingers on a position sensitive surface to position the cursor". Further, Santilli discloses that an advantage of using a set of keys is that the "surface used for pointing can be almost as large as the surface area of the entire keyboard if desired." (column 3, lines 4-9). Thus, there is nothing to be found in Santilli that would suggest or motivate modifying Santilli with Osawa to provide a single character input key that can be moved from an un-depressed position to a character input position and at least two navigation control input positions. In fact, Santilli teaches away from incorporating such a solution as Santilli teaches the use multiple keys collectively forming a touch sensitive surface – to move to a single input key that must be physically moved for navigation input would be contrary to the stated objects and advantages of Santilli. Further, the see-saw switch of Osawa is analogous to the "joystick" solution that Santilli teaches away from at column 2, lines 55 to 68.

Turning to Osawa, the Examiner has relied on the stated object in Osawa at paragraph [0009], lines 2-3, of making a thinner device that is more waterproof, as the motivation for modifying Santilli. It is respectfully submitted that the stated objective in Osawa has been taken out of context in identifying the motivation for modifying Santilli. In particular, in Osawa the objective of making a thinner, more waterproof device is relative to the conventional stick-like see-saw key assembly disclosed in the immediately preceding paragraph [0008] of Osawa. Accordingly, Osawa does not suggest or purport to have come up with a "thinner more waterproof" solution than the multiple key touch sensitive surface provided in Santilli – rather Osawa only purports to have come up with a thinner, more waterproof solution than alternative see-saw switch solutions. In fact there is nothing in the combined disclosures of Santelli or Osawa that would suggest that modifying Osawa according to Santelli would in fact arrive at a "thinner more waterproof" solution that what is already shown in Santelli.

It is worth noting as well that in Osawa, the use of the navigation key as a character input key is not disclosed. It will be appreciated by the Examiner that in typical navigation keys of the type shown in Osawa, the conventional use of the downward position is to make a control input, such as a selection entry into the mobile device, and the background of Osawa in paragraph [0002] discusses the use of the "seesaw" key for allowing a function to be selected and then set. There appears to be no suggestion in Osawa or Santelli of using a see-saw type of input for character input - indeed the traditional use of the downward position as a selection entry suggests an existing prejudice that would prevent someone skilled in the art from arriving at a device having a combined character and navigation key as presently claimed. It will also be noted that it is not evident from Osawa that the navigation input in such device provides tactile single click feedback to a user.

Accordingly, applicant submits that Santelli and Osawa each propose very different solutions for providing navigational inputs, and when the collective disclosure of the Santelli and Osawa references is considered in its entirety, a person skilled in the art would not be motivated to combine features from the two references to arrive at the subject matter of the present claims. Accordingly, claims 1-14 are directed to subject matter that is patentable over the cited references.

Claims 15-20

The Examiner has rejected claims 15-17 under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 2002/0190957 A1) in view of Osawa et al. (US 2002/0033270 A1), and claims 18-20 under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 2002/0190957 A1) in view of Osawa et al. (US 2002/0033270 A1) in further view of Kocis (US 5,485,614). Applicant respectfully submits that such rejection is improper and should be withdrawn for the following reasons.

Turning first to independent claim 15, clarifying amendments have been made to such claim. Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 15, either as originally filed or as presently amended.

Independent claim 15 claims a hand-held electronic device that has, among other things, a keyboard mounted within a face of the device and comprising a space bar key arranged closer to bottom edge of the face than the alphanumeric keys for inputting a space character for display on the display screen, the space bar key being movable from an un-depressed position to a plurality of detectable input positions including at least one input position corresponding to a navigational input for moving a navigation indicator on the display screen.

The Examiner has identified Lee as disclosing a hand-held electronic device that has a space bar key, but has admitted that the space bar key of Lee does not include a navigational input component for moving a navigation indicator on the display screen. The Examiner has indicated that Osawa discloses a navigational input component for moving a navigation indicator on the display screen (seesaw Key 10), that has five key contacts which enable a desired navigational input to be selected and set. The Examiner has indicated that it would be obvious to incorporate the navigational input component of Osawa into the spacebar of Lee because it would make the device thinner and more waterproof.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2143. Applicant submits that these three criteria have not been met, as detailed below.

First of all, absent the present application, the motivation to modify Lee with the teachings of Osawa in the manner suggested by the Examiner simply would not be apparent to a person skilled in the art upon collectively considering the teachings of Lee and Osawa.

Lee discloses a hand held device 10 having a touch screen display 14 (see Fig. 1a and Fig. 3 of Lee) to which a keyboard 12 can be attached. As the device of Lee includes a touch screen display, on-screen navigation occurs through a user touching the screen in the desired location (see for example user selectable "Confirm", "Cancel" and "Figure" touch screen buttons in Fig 1a of Lee).

Accordingly, Lee does not disclose that the keyboard 12 need to include any navigational input component, much less an input component integrated into the spacebar, as such a feature would be redundant in view of the disclosed touch screen. Osawa, on the other hand, is specifically concerned with addressing the shortcomings of existing seesaw key assemblies in conventional portable telephones (see paragraph [0008] of Osawa which describes the height problems and waterproof problems specifically in the context of convention stick-like seesaw key assemblies). Osawa does not discuss or disclose combining the navigational input function of a seesaw key with a character input key such as a space-bar key.

What is currently claimed is not a straight forward combination of features from Lee and Osawa. Although Lee shows a space-bar and Osawa shows a see-saw type navigational input component, there is no motivation contained in the references to suggest any need to combine a space-bar key (or any type of character input key) with a see-saw navigational input switch. The motivation identified by the Examiner, namely "to make the device thinner and more waterproof", appears to be pure speculation – why would modifying the simple single input space bar in touch-screen equipped Lee result in a device that is thinner and more waterproof? Indeed, integrating the see-saw switch disclosed in Osawa into Lee may in fact make the Lee device, which before such combination did not include a see-saw switch in the keyboard, less waterproof and thicker. It is important to note that in Osawa, the stated object in paragraph [0009] of making the device more thinner and waterproof (that has been relied on by the Examiner) is stated relative to the conventional stick-like seesaw key assembly disclosed in the immediately preceding paragraph [0008] of Osawa. Applicant suggests that at best, if a person skilled in the art were motivated to modify Lee according to Osawa, perhaps the result would be a device having an independent space bar key and a separate see-saw navigational input key – not a device having a combined space bar and navigational input key, as not only is there no motivation in the reference for such a

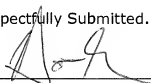
combination, there would also be no reasonable expectation of achieving the goals of a thinner and more waterproof device

It is further submitted that as neither Osawa or Lee either individually or collectively disclose the use of a dual function character input key (space bar or otherwise) that can also function as a navigational input, such references do not collectively disclose all of the claimed features of claim 15.

Applicant therefore submits that claim 15 and each of claims 16-20 that depend from it are directed to subject matter that is patentable over the above-cited references for the reasons cited above.

Reconsideration and allowance of the application is requested for the reasons stated above.

Respectfully Submitted.



David J. Greer, Reg. No. 43,395
Ridout & Maybee LLP
One Queen Street East, Suite 2400
Toronto, Ontario
Canada
416-868-1482

Customer Number 23577